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EXAMINER

PARK, CHAN S

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/803,077	SILVERBROOK, KIA	
	Examiner	Art Unit	
	CHAN S. PARK	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Chan S. Park

DETAILED ACTION

Claim Objections

The following quotations of 37 § CFR 1.75(a) is the basis of objection:

(a) The specification must conclude with a claim particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention or discovery.

1. Claims are objected to because of the following informalities:

Claim 3, line 1, "at least two the" should be -- at least two ~~the~~ --;

Claim 3, line 3, "the print media" should be -- the paper --;

Claim 5, line 1, "claimed in claim 3" should be -- claimed in claim 4 --;

Claims 6-8, line 1, "claimed in claim 4" should be -- claimed in claim 5 --;

Claim 10, line 1, "claimed in claim 8" should be -- claimed in claim 9 --;

Claim 11, line 1, "claimed in claim 8 or 9" should be -- claimed in claim 9 or 10 --;

Claim 23, line 2, "the print media" should be -- the paper --;

Claim 27, line 1, "claimed in claim 3" should be -- claimed in claim 4 --;

Claim 30, line 2, "a flat panel display" should be -- the flat panel display --;

Claim 30, lines 2-3, "a printer, the printer including a printhead" should be -- the printer, the printer including the printhead --;

Claim 32, line 2, "a flat panel display" should be -- the flat panel display --;

Claim 32, line 3, "a printer" should be -- the printer --;

2. Claim 18 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 3. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper

after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP§ 706.03(k).

Claims 28-30 are objected to under 37 CFR 1.75 as being a substantial duplicate of claim 1. The printer limitation of claims 28-30 is already recited in the independent claim 1. The examiner suggests deleting the limitation.

Claim 31 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 1. The first two claim limitations of claim 31 are already recited in the independent claim 1. The examiner suggests deleting the limitations.

Double Patenting

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

3. Claim 29 is provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1 and 33 of copending Application No. 10/803,073 (refer to the U.S. Patent Application Pub. No. 2004/0184045). This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1-28 and 30-33 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2 and 5-35 of copending Application No. 10/803,073. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims of the instant application are broader recitation of claims of the copending application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

With respect to claim 1, claims 1 and 33 of Application 073' recites a printing and display device comprising: a flat panel display; a printer, including a printhead for printing onto paper; a multi-sheet paper holder; a paper sheet separator configured to

separate a single paper sheet from the paper in the paper holder for supply to the printhead.

With respect to claims 2-28 and 30-33, see claims 1, 2 and 5-35 of Application 073'. Again, note that they are not patentably distinct from each other because claims of the instant application are broader recitation of claims of the copending application.

In this case, when considering "the printing and display device" as recited in claims 1-28 and 30-33 of the instant application, it is noted that such limitation is broader than "the printing and display device" as recited in the copending application 073' since the device of 073' requires a stand including at least one receptacle configured to accept at least one replaceable ink cartridge for supplying ink to the printer. Thus, it is noted that allowing this would result in an unjustified or improper timewise extension of the "right to exclude" granted by a patent.

5. Claims 1, 3, 4, 6-30 and 32 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-31 of U.S. Patent No. 7,040,823. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims of the instant application are broader recitation of claims of 823'.

With respect to claim 1, claims 1 and 30 of 823' recites a printing and display device comprising:

a flat panel display (claim 1, line 3);

a printer, including a printhead for printing onto paper (claim 1, lines 5-6);

a multi-sheet paper holder (claim 30, line 2);

a paper sheet separator configured to separate a single paper sheet from the paper in the paper holder for supply to the printhead (claim 30, lines 3-5).

With respect to claim 3, see claims 1, 8 and 30 of 823'.

With respect to claim 4, see claims 1, 7 and 30 of 823'.

With respect to claim 6, see claims 1, 9 and 30 of 823'.

With respect to claim 7, see claims 1, 10 and 30 of 823'.

With respect to claim 8, see claims 1, 11 and 30 of 823'.

With respect to claim 9, see claims 1, 13 and 30 of 823'.

With respect to claim 10, see claims 1, 14 and 30 of 823'.

With respect to claim 11, see claims 1, 15 and 30 of 823'.

With respect to claim 12, see claims 1, 16 and 30 of 823'.

With respect to claim 13, see claims 1, 18 and 30 of 823'.

With respect to claim 14, see claims 1, 19 and 30 of 823'.

With respect to claim 15, see claims 1, 20 and 30 of 823'.

With respect to claim 16, see claims 1 and 30 of 823'.

With respect to claim 17, see claims 1, 2 and 30 of 823'.

With respect to claim 18, see claims 1, 8 and 30 of 823'.

With respect to claim 19, see claims 1, 20 and 30 of 823'.

With respect to claim 20, see claims 1, 21 and 30 of 823'.

With respect to claim 21, see claims 1, 22 and 30 of 823'.

With respect to claim 22, see claims 1, 23 and 30 of 823'.

With respect to claim 23, see claims 1, 24 and 30 of 823'.

With respect to claim 24, see claims 1, 25 and 30 of 823'.

With respect to claim 25, see claims 1, 26 and 30 of 823'.

With respect to claim 26, see claims 1, 27 and 30 of 823'.

With respect to claim 27, see claims 1, 28 and 30 of 823'.

With respect to claim 28, see claims 1 and 30 of 823'.

With respect to claim 29, see claims 1, 29 and 30 of 823'.

With respect to claim 30, see claims 1, 3, 7 and 30 of 823'.

With respect to claim 32, see claims 1, 8 and 30 of 823'.

In this case, when considering "the printing and display device" as recited in claims 1-28 and 30-33 of the instant application, it is noted that such limitation is broader than "the monitor" device as recited in the copending application 073' since the device of 073' requires a connection to an external computer at a remote location. Thus, it is noted that allowing this would result in an unjustified or improper timewise extension of the "right to exclude" granted by a patent.

6. Claim 2 rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 30 of U.S. Patent No. 7,040,823 in view of Nicolas et al. U.S. Patent No. 6,593,944 (hereinafter Nicolas).

With respect to claim 2, claims 1 and 30 823' recite claim 1 of instant application, but it does not explicitly disclose that the viewable size of the printing and display device exceeds 40cm along a diagonal of the printing and display device.

Nicolas discloses a display with a 17-inch monitor display (col. 1, lines 46-49). Note that 17-inch is longer than 40 cm. At the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate a bigger (17-inch monitor) display into the printing and display device. The suggestion/motivation for doing so would have been to provide a wider and bigger display for viewing images.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 9-14, 16, 19-22, 25, 26 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Inoue et al. U.S. Patent No. 6,120,127 (hereinafter Inoue).

With respect to claim 1, Inoue discloses a printing and display device (figs. 36, 39 & 68 and col. 44, lines 40-54) comprising:

- a. flat panel display (display unit 1104 in figs. 36 & 39 or display unit 3313 in fig. 68);
- b. a printer, including a printhead for printing onto paper (recording head in the printer unit 1406 in fig. 39 or 3300 in fig. 68 and col. 44, lines 57-59);
- c. a multi-sheet paper holder (tray for holding papers according to col. 31, lines 45-46 & tray 3333 or automatic paper sheet feeding device 3330 in col. 44, lines 40-54); and

d. a paper sheet separator configured to separate a single paper sheet from the paper in the paper holder for supply to the printhead (a single sheet is fed automatically in the printing unit for printing in col. 31, lines 55-60 & col. 44, lines 42-44).

With respect to claim 9, Inoue discloses a printing and display device as claimed in claim 1, further including a paper feed mechanism for feeding paper to the printhead for printing (automatic paper feeding device 3330 in col. 44, lines 46-50), the printhead being arranged to print onto the paper (recording head in the printer unit 3300 in col. 44, lines 57-59).

With respect to claim 10, Inoue discloses a printing and display device as claimed in claim 9, wherein the paper feed mechanism is configured to position the paper substantially parallel in at least one direction with respect to a plane defined by the flat panel display (note that the paper in the automatic paper feeding device 3330 is positioned substantially parallel to the display in fig. 68).

With respect to claim 11, Inoue discloses a printing and display device as claimed in claim 9 or 10, wherein the paper feed mechanism is configured to accept a single sheet of paper at a time for printing (note that a single sheet must be fed at a time for printing according to col. 44, lines 46-54).

With respect to claim 12, Inoue discloses a printing and display device as claimed in claim 9 or 10, wherein the paper feed mechanism includes a paper separator for feeding a single sheet of paper to the printhead from a stack of sheets of paper (note

that a paper separator must be present to feed a single sheet at a time for printing according to col. 44, lines 46-54).

With respect to claim 13, Inoue discloses a printing and display device as claimed in claim 1, wherein the printer is a process color printer (printer having a color recording head in col. 52, lines 54-61).

With respect to claim 14, Inoue discloses a printing and display device as claimed in claim 1, wherein the printer is an inkjet printer (ink jet recording apparatus in col. 53, lines 26-28).

With respect to claim 16, Inoue discloses a printing and display device as claimed in claim 1 or 14, wherein the printer is a page-width printer (page-width printer is shown in figs. 67B & 68).

With respect to claim 19, Inoue discloses a printing and display device as claimed in claim 1, configured to enable printing of standard A4 or Letter sized sheets of paper (col. 15, lines 21-23).

With respect to claim 20, Inoue discloses a printing and display device as claimed in claim 1, configured such that paper to be printed is fed manually into a paper path (user must manually place the papers in the tray in fig. 68) that directs the paper from a region adjacent the upper edge of the flat panel display, past the printhead for printing, then out of the device adjacent a lower edge of the flat panel display (referring to fig. 68, the paper is initially fed from the region adjacent to the upper edge of the flat panel display and then out from the bottom part of the display according to fig. 68).

With respect to claim 21, Inoue discloses a printing and display device as claimed in claim 1, further including a curved paper guide disposed (guide 3332 in fig. 68), when the device is in use, beneath the flat panel display (fig. 68), such that the paper that has been printed is urged horizontally as it exits the device (discharging the printed paper in fig. 68).

With respect to claim 22, Inoue discloses a printing and display device as claimed in claim 1, wherein the flat panel display is Liquid Crystal Display (display in col. 40, lines 65-67).

With respect to claim 25, Inoue discloses a printing and display device as claimed in claim 1, wherein the printhead is configured to print photographic images (col. 42, lines 44-45). It is apparent that the printer of fig. 68 is also used to print images.

With respect to claim 26, Inoue discloses a printing and display device as claimed in claim 1, wherein the printhead is configured to print image and text data (col. 42, lines 44-45 & fig. 1). It is apparent that the printer of fig. 68 is also used to print characters and images.

With respect to claim 31, Inoue discloses a printing and display device as claimed in claim 1 further comprising:

- a flat panel display; (display unit 3313 in fig. 68);
- b. a printer, including a printhead for printing onto paper (recording head in the printer unit 3300 in col. 44, lines 57-59);

the device being configured such that, during printing, the paper being printed passes between the flat panel display and the printhead (discharging the paper between the display and the printhead in col. 29, line 66 – col. 30, line 6), or passes behind the flat panel display and the printhead relative to a viewing position of the flat panel display.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue as applied to claim 1 above, and further in view of Nicolas.

With respect to claim 2, Inoue discloses a printing and display device as claimed in claim 1, but it does not explicitly disclose that the viewable size of the printing and display device exceeds 40cm along a diagonal of the printing and display device.

Nicolas, the same field of endeavor of the laptop computer art, discloses a laptop with a 17-inch monitor display (col. 1, lines 46-49). Note that 17-inch is longer than 40 cm.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate a bigger (17-inch monitor) display into the printing and display device of Inoue.

The suggestion/motivation for doing so would have been to provide a wider and bigger display for viewing images.

Therefore, it would have been obvious to combine Inoue with Nicolas to obtain the invention as specified in claim 2.

With respect to claim 17, Inoue discloses a printing and display device as claimed in claim 1, but it does not explicitly disclose that the flat panel display measures at least 14 inches on the diagonal.

Nicolas, the same field of endeavor of the laptop computer art, discloses a laptop with a 17-inch monitor display (col. 1, lines 46-49).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate a bigger (17-inch monitor) display into the printing and display device of Inoue.

The suggestion/motivation for doing so would have been to provide a wider and bigger display for viewing images.

Therefore, it would have been obvious to combine Inoue with Nicolas to obtain the invention as specified in claim 17.

9. Claims 4-8, 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue as applied to claim 1 above, and further in view of Purpura U.S. Patent No. 6,973,518 (hereinafter Purpura).

With respect to claim 4, Inoue discloses a printing and display device as claimed in claim 1, but it does not explicitly disclose that the device is configured to

receive print data to be printed, and display data to be displayed, from a computer system.

Purpura, the same field of endeavor of the portable personal computer art (col. 5, lines 61-62), discloses a laptop computer configured to receive display data to be display from computer system (receiving display data via Internet in col. 6, lines 25-34).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the printing and display device of Inoue to communicate with computer system (Internet network) to receive image data for display and printing.

The suggestion/motivation for doing so would have been to provide a large database access to the user for displaying and printing images.

Therefore, it would have been obvious to combine Inoue with Purpura to obtain the invention as specified in claim 4.

With respect to claim 5, the combination of Inoue and Purpura discloses the printing and display including a connection configured to allow releasable operative connection of the computer system (the network connection including an Ethernet port for connecting the device to the Internet in col. 8, lines 17-35 & fig. 4) to the printing and display device, for receiving the print data and the display data from the computer system. Note that the Ethernet cable is a releasable operative connection.

With respect to claim 6, the combination of Inoue and Purpura discloses a printing a display device as claimed in claim 5, wherein the connection includes at least one socket for accepting at least one corresponding data cable (Ethernet cable in col. 8, lines 17-35).

With respect to claim 7, the combination of Inoue and Purpura discloses a printing a display device as claimed in claim 5, wherein the connection includes a wireless receiver for receiving the print data and/or the display data (wireless card in col. 8, lines 17-35 & fig. 4).

With respect to claim 8, the combination of Inoue and Purpura discloses a printing a display device as claimed in claim 5, wherein the connection is a Universal Synchronous Bus (USB) connection (USB in col. 8, lines 17-35).

With respect to claim 27, the combination of Inoue and Purpura discloses a printing a display device as claimed in claim 4, wherein the computer system is a personal computer (access the email sent from another PC in col. 6, lines 49-52).

With respect to claim 28, Inoue discloses the printing and display device as claimed in claim 1 further comprising: the flat panel display for displaying images. Inoue, however, does not explicitly disclose that the images are from a computer. As noted above in claim 4, Purpura discloses a laptop computer configured to receive display data to be display from computer system (receiving display data via Internet in col. 6, lines 25-34). Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Inoue with Purpura to obtain the invention as specified in claim 28.

With respect to claim 29, Inoue discloses a stand holding the flat panel display in an operative position (note that the body supporting the display in fig. 36 is construed as the claimed stand) wherein the stand includes ink cartridge for supplying ink to the printer (the bodying including the printhead 1406 in fig. 36). This particular embodiment

of Inoue does not explicitly teach that the stand includes receptacle configured to accept a replaceable ink cartridge. However, Inoue, in the other embodiment, teaches the receptacle for accepting a replaceable ink cartridge (col. 26, lines 53-58). At the time of the invention, it would have been obvious to one of ordinary skill in the art to include this receptacle for accepting a replaceable ink cartridge in order to replace the exhausted cartridge.

Inoue does not explicitly disclose that the device is configured to receive print data to be printed, and display data to be displayed, from a computer system.

Purpura, the same field of endeavor of the portable personal computer art (col. 5, lines 61-62), discloses a laptop computer configured to receive display data to be display from computer system (receiving display data via Internet in col. 6, lines 25-34).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the printing and display device of Inoue to communicate with computer system (Internet network) to receive image data for display and printing.

The suggestion/motivation for doing so would have been to provide a large database access to the user for displaying and printing images.

Therefore, it would have been obvious to combine Inoue with Purpura to obtain the invention as specified in claim 29.

10. Claim 30 rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue as applied to claim 1 above, and further in view of Purpura, and further in view of Nickum U.S. Patent No. 7,003,279.

With respect to claim 30, Inoue discloses the printing and display device as claimed in claim 1 but it does not explicitly disclose a data connection for receiving print data from a computer; a flat panel display for displaying images received from a computer; a printer, the printer including a printhead for printing onto paper on the basis of the print data; and a data connection hub configured to allow connection of at least one data-receiving device to the printing and display device, enabling the data-receiving device to receive data from the computer.

Purpura, as noted above in claim 4, discloses a laptop computer configured to receive display data to be display from computer system (receiving display data via Internet in col. 6, lines 25-34).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the printing and display device of Inoue to communicate with computer system (Internet network) to receive image data for display and printing.

The suggestion/motivation for doing so would have been to provide a large database access to the user for displaying and printing images.

The combination of Inoue and Purpura, however, does not explicitly disclose a data connection for receiving print data from a computer; and a data connection hub configured to allow connection of at least one data-receiving device to the printing and display device, enabling the data-receiving device to receive data from the computer.

Nickum, the same field of endeavor of the laptop computer art, discloses a laptop (laptop computer 400 in fig. 5) computer including a data connection (interface) for receiving data from a computer; and a data connection hub configured to allow

connection of at least one data-receiving device to the laptop device, enabling the data-receiving device (external wireless interface device in fig. 5) to receive data from the computer (external wireless interface device col. 5, lines 48-54 for receiving data from the network).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the laptop of Inoue to include the interface for connecting the external wireless interface device as taught by Nickum.

The suggestion/motivation for doing so would have been to provide a wireless connection to the laptop even if the laptop does not have the internal wireless capability.

Therefore, it would have been obvious to combine three references to obtain the invention as specified in claim 30.

11. Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue as applied to claim 1 above, and further in view of Morikawa et al. U.S. Patent No. 6,771,388 (hereinafter Morikawa).

With respect to claim 23, Inoue discloses a printing and display device of claim 1, but it does not explicitly disclose the printhead configured to receive halftoned print data to be printed onto the paper.

Morikawa, the same field of endeavor of the inkjet printing art, discloses an inkjet printer wherein the inkjet printer processes image data to generate halftoned print data (col. 9, lines 1-11) and prints the halftoned print data using printhead (col. 9, lines 36-45).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the printhead of Inoue to receive halftoned print data to be printed onto the paper as taught by Morikawa.

The suggestion/motivation for doing so would have been to reduce or eliminate the discontinuous gradation reproduction by applying the halftone processing to the printer of Inoue (abstract of Morikawa).

Therefore, it would have been obvious to combine Inoue with Morikawa to obtain the invention as specified in claim 23.

With respect to claim 24, Inoue discloses a printing and display device of claim 1, but it does not explicitly disclose the device including a halftoning unit for generating image data and supplying it to the printhead for printing.

Morikawa, the same field of endeavor of the inkjet printing art, discloses an inkjet printer wherein the inkjet printer processes image data to generate halftoned print data (col. 9, lines 1-11) and prints the halftoned print data using printhead (col. 9, lines 36-45).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the printer of Inoue to incorporate the halftoning unit to generate halftone image data and to print the data using the printhead as taught by Morikawa.

The suggestion/motivation for doing so would have been to reduce or eliminate the discontinuous gradation reproduction by applying the halftone processing to the printer of Inoue (abstract of Morikawa).

Therefore, it would have been obvious to combine Inoue with Morikawa to obtain the invention as specified in claim 24.

12. Claims 3, 15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue as applied to claim 1 above, and further in view of Silverbrook U.S. Patent No. 5,984,446.

With respect to claim 3, Inoue discloses a printing and display device of claim 1, but it does not explicitly disclose that the printer includes at least two printheads, the printheads being disposed on either side of a path through which print media is fed for printing, thereby enabling substantially simultaneous printing of both sides of the paper.

Silverbrook, the same field of endeavor of the inkjet printing art, discloses an inkjet printer including at least two printheads (printheads 50 in fig. 12), the printheads being disposed on either side of a path through which print media is fed for printing, thereby enabling substantially simultaneous printing of both sides of the paper (printing on both sides by two printheads according to col. 49, lines 29-32 & fig. 12).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the printer of Inoue to incorporate another printhead as taught by Silverbrook.

The suggestion/motivation for doing so would have been to facilitate a faster double-side printing by eliminating the step feeding back the printed paper for the second side printing.

Therefore, it would have been obvious to combine Inoue with Silverbrook to obtain the invention as specified in claim 3.

With respect to claim 15, Inoue discloses a printing and display device of claim 1, but it does not explicitly disclose that the printer has more than 5,000 inkjet nozzles.

Silverbrook, the same field of endeavor of the inkjet printing art, discloses an inkjet printer including more than 5,000 inkjet nozzles (col. 19, lines 1-3).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the printhead of Inoue to include more than 5,000 inkjet nozzles as taught by Silverbrook.

The suggestion/motivation for doing so would have been to provide a faster and more efficient color inkjet printing process (col. 19, lines 1-11 of Silverbrook).

Therefore, it would have been obvious to combine Inoue with Silverbrook to obtain the invention as specified in claim 15.

With respect to claim 18, the arguments are analogous to those presented for claim 3, are applicable.

13. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue as applied to claim 1 above, and further in view of Purpura, and further in view of Silverbrook.

With respect to claim 32, Inoue discloses the printing and display device as claimed in claim 1 but it does not explicitly disclose the flat panel display for displaying images from a computer; and a printer, the printer including at least two the printheads;

the printheads being disposed on either side of a path through which print media is fed for printing, thereby enabling substantially simultaneous printing of both sides of the print media.

Purpura, as noted above in claim 4, discloses a laptop computer configured to receive display data to be display from computer system (receiving display data via Internet in col. 6, lines 25-34).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the printing and display device of Inoue to communicate with computer system (Internet network) to receive image data for display and printing.

The suggestion/motivation for doing so would have been to provide a large database access to the user for displaying and printing images.

The combination of Inoue and Purpura, however, does not explicitly disclose the printer including at least two the printheads, the printheads being disposed on either side of a path through which print media is fed for printing, thereby enabling substantially simultaneous printing of both sides of the print media.

Silverbrook, the same field of endeavor of the inkjet printing art, discloses an inkjet printer including at least two printheads (printheads 50 in fig. 12), the printheads being disposed on either side of a path through which print media is fed for printing, thereby enabling substantially simultaneous printing of both sides of the paper (printing on both sides by two printheads according to col. 49, lines 29-32 & fig. 12).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the printer of Inoue to incorporate another printhead as taught by Silverbrook.

The suggestion/motivation for doing so would have been to facilitate a faster double-side printing by eliminating the step feeding back the printed paper for the second side printing.

Therefore, it would have been obvious to combine three references to obtain the invention as specified in claim 32.

14. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue as applied to claim 1 above, and further in view of Shenoy et al. U.S. Patent Application No. 2003/0197887 (hereinafter Shenoy).

With respect to claim 33, Inoue discloses a printing and display device as claimed in claim 1, wherein the device further includes an interface for receiving input from a user indicative of a print command (user inputting a recording command in col. 30, lines 40-45).

Inoue, however, does not explicitly teach that the device is configured to
receive documents to be printed from a computer system;
send, from the device to the computer system, a print request;
receive, from the computer system and in response to the print request, a
document to be printed; and
print the document.

Shenoy, the same field of endeavor of printer accepting the print command (a user input for retrieving documents for print in paragraph 45), discloses a printer configured to:

receive documents to be printed from a computer system (paragraph 57);

send, from the printer to the computer system, a print request (request for the document in paragraph 57);

receive, from the computer system and in response to the print request, a document to be printed (receiving/pulling document from the job store 140 in paragraph 57); and

print the document (paragraph 57).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the device of Inoue to include the function of requesting a desired document via the network as taught by Shenoy.

The suggestion/motivation for doing so would have been to save the memory in the printer by saving the print jobs at the external location.

Therefore, it would have been obvious to combine Inoue and Shenoy to obtain the invention as specified in claim 33.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

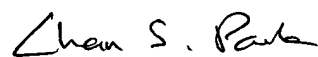
JP Patent Pub. No. 2001-130090 discloses a display with printer.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHAN S. PARK whose telephone number is (571) 272-7409. The examiner can normally be reached on M-F 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on (571) 272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chan S. Park
Examiner
Art Unit 2625



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